REMARKS

Applicants note with appreciation the indication by the Examiner of allowable subject matter recited in claims 3 and 17.

The foregoing amendment cancels claims 1-17 and adds new claims 18-38. The new claims correspond to the claims that have been granted on the equivalent UK case. No new matter has been added and no issues have been raised.

Now pending in the application are claims 18-38 of which claims 18 and 23-27 are independent. Reconsideration and allowance are requested in light of the above amendments and the following remarks.

Claim Amendments

Claims 1-17 have been canceled.

New claims 18-38 have been added. Basis for these claims can be found in the specification on page 12, lines 11-23, on page 13, lines 5-25, and on page 16, lines 1-12.

No new matter has been added by the foregoing claim amendments.

None of the documents cited by the Examiner disclose, teach or suggest measuring the flow rate of one phase of a two-phase flow. The references discuss measuring the flow rate of a two-phase flow as a whole.

Claim Objections

Claims 5-16 are objected under 37 CFR 1.75(c) as being in improper form because of a multiple dependent claim 3. Claims 5-16 are canceled by the foregoing amendment and therefore the claim objection under 35 CFR 1.75(c) is considered moot.

Claims Rejections under 35 U.S. C. §102

Claims 1, 2 and 4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,463,904 of Kalinoski (hereinafter "Kalinoski"). Claims 1, 2 and 4 are canceled by the foregoing amendment and therefore their rejection under 35 U.S.C. § 102(e) is considered moot.

New Claims

New claims 18-38 are not anticipated by nor are they rendered obvious by the Kalinowski and Evans references, alone or in any combination. For at least the following arguments, new claims 18-38 are patentable over any of the cited references.

Applicants respectfully submit that the Examiner's citation of the Kalinoski reference in Paragraph 3 of the Office Action appears misplaced. For example, the Examiner points to "turbine flowmeter 26 as shown in Fig. 1" in the Kalinoski reference as disclosing the "flowmeter" of Applicants' claims 1, 2 and 4. However, Figure 1 of the Kalinoski reference includes neither a turbine flowmeter nor reference numeral 26.

Applicants believe that, rather than citing the Kalinoski reference, the Examiner intended to cite U.S. Patent No. 6,412,352 of Evans et al. (hereinafter "Evans"), which is listed in the Notice of Reference Cited annexed to the Office Action. The references cited in Paragraph 3 of the Office Action make sense when the Evans reference is considered. For the avoidance of doubt, both documents have been considered as set forth below.

Applicants contend that the Kalinoski and Evans references, alone or in combination, fail to disclose, teach or suggest all elements of Applicants' new claims, as described below and hence, do not detract from the patentability of the claimed invention.

Evans is generally directed to measuring the mass flow rate of a multi-phase flow. Evans describes the use of an accelerometer located on the outside of a conduit through which a multi-phase fluid flows. The accelerometer measures the mass flow rate of a two-phase flow by taking into account fluctuations in the measured signal.

Evans does not disclose, teach or suggest a vortex flowmeter which is an intrusive measurement device. With regard to intrusive devices, Evans states: "An important aspect of the present invention is that the method is not invasive or intrusive and is not therefore subject to the corrosive effects of the fluid" (Evans, column 5, lines 59-62). In view of the statement that an intrusive measurement is undesirable for the Evans apparatus, there would be no motivation for a person skilled in the art to modify Evans to incorporate a vortex flowmeter.

Furthermore, Evans does not disclose, teach or suggest monitoring or determining the flow rate of at least one fluid phase of a two or three phase fluid flow in a closed conduit. Evans is concerned with measuring the flow rate of a multi-phase fluid as a whole. In contrast, Applicants' claims require measuring the flow rate of a single phase in a multi-phase fluid flow.

Thus, even if a person skilled in the art were to incorporate a vortex flowmeter in the apparatus of Evans, he still would not obtain a method approaching that of Applicants' invention. Evans makes no suggestion that measuring the flow rate of a single phase of a two-phase flow would be either possible or desirable.

The Kalinoski reference is generally directed to a sensor for use in a vortex flow meter that is able to measure more than one process condition at the same time. Applicants respectfully submit that the Kalinoski reference also fails to disclose, teach or suggest monitoring or determining the flow rate of at least one fluid phase of a two or three phase fluid flow in a closed conduit. The reference does not make any mention of determining the flow rate of one phase of a two-phase flow. Furthermore, Kalinoski refers to the measurement signals as being produced by a processing element which "functions in a known way to produce conventional measurement signals" (Kalinoski, column 5, line 35). Kalinoski appears concerned with measuring more than one known parameter using the same sensor, but does not disclose, teach or suggest measuring the unconventional signal of the flow rate of at least one fluid phase of a two or three phase fluid flow.

In light of the foregoing arguments, the Evans and Kalinoski patents, alone or in combination, do not anticipate or render obvious the pending claims.

CONCLUSION

For at least the foregoing reasons, Applicants respectfully submit that all pending claims are patentable, and request that the objections and rejections be reconsidered and withdrawn. If a telephone conversation with Applicants' attorney would help expedite the prosecution of the above-identified application, the Examiner is urged to call the undersigned attorney at (617) 227-7400.

If any fee is due, please charge our Deposit Account No. 12-0080, under Order No. BKB-004US, from which the undersigned is authorized to draw.

Dated: March 8, 2007

Respectfully submitted,

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